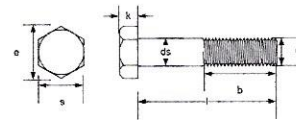


## PART THREAD HEXAGON HEAD SCREWS # 931 - DIN & ISO DIMENSIONS

Ref: DIN 931 - Part 1 & 2 1987

Standard Part 1 contains specifications for hexagon head bolts with metric screw thread from M 1.6 to M 39 with the product grade A for sizes up to M 24 and product grade B for sizes above M 24. Standard part 2 contains specifications for hexagon head bolt with metric screw thread from M 42 to M 160 in product grade B. Because ISO standard covers only sizes up to M 36, the DIN standard was subdivided into Part 1 (M 1.6 to M 36) and Part 2 (M 42 to M 160).

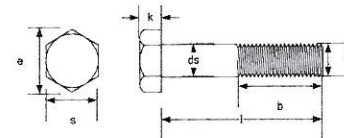


Dimensions in mm.

NOM. THREAD DIAMETER (d)	M 3	M 4	M 5	M 6	(M 7)	M 8	M 10	M 12	(M 14)	M 16	(M 18)	M 20	(M 22)	M 24	(M 27)	M 30	(M 33)	M 36	(M 39)	M 42	(M 45)	M 48	
THREAD PITCH (coarse)	0.5	0.7	0.8	1	1	1.25	1.5	1.75	2	2	2.5	2.5	2.5	3	3	3.5	3.5	4	4	4.5	4.5	5	
Thread length (b) for Nom. length (l)	125 mm & shorter	12	14	16	18	20	22	26	30	34	38	42	46	50	54	60	66	72	78	84	90	96	102
	200 mm & longer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
washer face	min.	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3
	max.	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1	1	1	1
ds	min.	3	4	5	6	7	8	10	12	14	16	18	20	22	24	27	30	33	36	39	42	45	48
	max.	3	4	5	6	7	8	10	12	14	16	18	20	22	24	27	30	33	36	39	42	45	48
e min.	Product Grade A	6.01	7.66	8.79	11.05	12.12	14.38	18.9	21.1	24.49	26.75	30.14	33.53	35.72	39.98	-	-	-	-	-	-	-	-
	Product Grade B	-	-	8.63	10.89	11.94	14.20	-	-	-	26.17	29.56	32.95	35.03	39.55	45.20	50.85	55.37	60.79	66.44	72.02	76.95	82.60
k	Nom. Dimensions min.	2	2.8	3.5	4	4.8	5.3	6.4	7.5	8.8	10	11.5	12.5	14	15	17	18.7	21	22.5	25	26	28	30
	max.	1.86	2.68	3.35	3.85	4.65	5.15	6.22	7.32	8.62	9.82	11.28	12.28	13.78	14.78	16.65	18.28	20.58	22.08	24.58	25.58	27.58	29.58
Max. = Nom. Dimensions	min.	2.12	2.92	3.65	4.15	4.95	5.45	6.58	7.68	8.98	10.18	11.72	12.72	14.22	15.22	17.35	19.12	21.42	22.92	25.42	26.42	28.42	30.42
	max.	5.5	7	8	10	11	13	17	19	22	24	27	30	32	36	41	46	50	55	60	65	70	75
s	min.	5.32	6.78	7.78	9.78	10.73	12.73	16.73	18.67	21.67	23.67	26.67	29.67	31.61	35.38	40	45	49	53.8	58.8	63.8	68.1	73.1

Ref: ISO 4014-1979

This international standard gives specifications partly threaded hexagon head bolts with metric dimensions and thread diameters from 3 mm up to and including 36 mm with product grade A for sizes M 3 to M 24 and with product grade B for sizes M 30 and M 36.



Dimensions in mm.

NOM. THREAD DIAMETER (d)	M 3	M 4	M 5	M 6	M 8	M 10	M 12	(M 14)	M 16	M 20	M 24	M 30	M 36
THREAD PITCH (coarse)	0.5	0.7	0.8	1	1.25	1.5	1.75	2	2	2.5	3	3.5	4
Thread length (b) for Nom. length (l)	125 mm & shorter	12	14	16	18	22	26	30	34	38	46	54	66
	200 mm & longer	-	-	-	-	-	-	-	-	-	-	-	-
washer face	min.	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.2	0.2	0.2	0.2
	max.	0.4	0.4	0.5	0.5	0.6	0.6	0.6	0.6	0.8	0.8	0.8	0.8
ds	min.	3	4	5	6	8	10	12	14	16	20	24	30
	max.	3	4	5	6	8	10	12	14	16	20	24	30
k	Nom. Dimensions min.	2	2.8	3.5	4	4.8	5.3	6.4	7.5	8.8	10	11.5	12.5
	max.	1.86	2.68	3.35	3.85	4.65	5.15	6.22	7.32	8.62	9.82	11.28	12.28
Length below 150 mm	min.	2.12	2.92	3.65	4.15	4.95	5.45	6.58	7.68	8.98	10.18	11.72	12.72
	max.	-	-	-	-	-	-	-	-	-	-	-	-
Length over 150 mm	min.	-	-	3.26	3.76	5.06	6.11	7.21	8.51	9.71	12.15	14.65	16.28
	max.	-	-	3.74	4.24	5.54	6.69	7.79	9.09	10.29	12.85	15.35	18.12
s	min.	5.5	7	8	10	13	16	18	21	24	30	36	46
	max.	5.32	6.78	7.78	9.78	12.73	15.73	17.73	20.67	23.67	29.67	35.38	45

Comparison Chart on ISO/DIN standards across flat size differences

Thread Diameter	M 10		M 12		M 14	
	Max.	Min.	Max.	Min.	Max.	Min.
ISO mm	16	15.73	18	17.73	21	20.67
DIN mm	17	16.73	19	18.67	22	21.67